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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,635	02/09/2004	Kouichi Kumamoto	KOY-0033	9414
23413	7590	05/31/2006		
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002				
EXAMINER FIDLER, SHELBY LEE				
ART UNIT			PAPER NUMBER	
2861				

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/774,635	KUMAMOTO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shelby Fidler	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-10 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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## DETAILED ACTION

### *Allowable Subject Matter*

The indicated allowability of claim 5 is withdrawn in view of the newly discovered reference(s) to Ylitalo et al. (US 6543890 B1). Rejections based on the cited reference(s) follow.

Claims 8-10 are allowed.

The primary reason for the allowance of claims 8-10 is the inclusion of the limitation of an inkjet printer that includes measuring the luminous energy before a recording operation is resumed after the media error is detected and the recording operation is stopped. It is this limitation found in the claims, as it is claimed in the combination, that has not been found, taught, or suggested by the prior art of record which makes these claims allowable over the prior art.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 6, 7, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admission in view of Ylitalo et al. (US 6543890 B1).

**Admission teaches the following:**

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**\*regarding claim 1**, an inkjet printer comprising:

a recording head for jetting ink (pg 1, line 11) cured with irradiation of light (pg 2, line 1) onto a recording medium (pg 1, lines 13-14);

a light source for irradiating the light toward the ink jetted on the recording medium, the light source being provided so as to face the recording medium (pg 2, lines 1-6);

a media error detection mechanism for detecting a media error of the recording medium (pg 2, lines 13-15);

a conveyance mechanism for conveying the recording medium in a predetermined direction (conveyance mechanism is inherent with the action of conveyance, pg 2, lines 14-15);

a control device for controlling the recording head and the conveyance mechanism (pg 2, lines 15-17), the control device controlling the conveyance mechanism to stop conveying the recording medium, and controlling the recording head to stop jetting the ink (stops the recording operation, pg 2, lines 16-17), when the media error of the recording medium is detected by the media error detection mechanism (pg 2, lines 18-19)

**\*regarding claim 4**, the control device controls the recording operation (pg 2, lines 16-17) when the media error of the recording medium is detected by the media error detection mechanism (pg 2, lines 18-19)

**\*regarding claim 6**, the control device controls the recording operation to stop (pg 2, lines 16-17) when the media error of the recording medium is detected by the media error detection mechanism (pg 2, lines 18-19)

**\*regarding claim 11**, the ink is UV curable ink capable of being cured with irradiation of ultraviolet rays (pg 2, line 1)

**\*regarding claim 13**, the printer forms an image by jetting ink onto the recording medium (pg 1, lines 20-21)

**Admission does not expressly teach the following:**

**\*regarding claim 1**, a protection member capable of being placed between the light source and the recording medium; and

the protection member is further placed between the recording head and the recording medium

**\*regarding claim 4**, a driving mechanism for the protection member, wherein the control device controls the driving mechanism to place the protection member between the light source and the recording medium upon print stoppage

**\*regarding claim 6**, a head moving mechanism for moving the recording head of a serial print type in a direction perpendicular to a conveyance direction of the recording medium; and the recording operation includes driving the head moving mechanism

**\*regarding claim 7**, the recording head is of a line print type

**Ylitalo et al. teach the following:**

**\*regarding claim 1**, a protection member (shield 20, Fig. 1) capable of being placed between the light source and the recording medium (col. 5, lines 1-3); and

the protection member is further placed between the recording head and the recording medium (Fig. 1 shows that the shield 20 would further be placed in the space between the printhead 11 and the substrate 12)

**\*regarding claim 4**, a driving mechanism for the protection member (motor 26, Figure 1), wherein the control device controls the driving mechanism to place the protection member

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between the light source and the recording medium upon print stoppage (col. 3, lines 48-49 show that the shield will cover the light source upon stoppage of the recording medium)

**\*regarding claim 6**, it is known to have a head moving mechanism (movable carriage, col. 1, line 29) for moving the recording head of a serial print type in a direction perpendicular to a conveyance direction of the recording medium(col. 1, lines 28-31) ; and

the recording operation includes driving the head moving mechanism (col. 1, lines 31-34)

**\*regarding claim 7**, the recording head is of a line print type (col. 8, lines 51-52)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a protection member capable of being placed between the light source and the recording medium when the media error is detected into Admission's invention. The motivation for doing so, as taught by Ylitalo et al., is to enable the amount of radiation reaching the substrate to be precisely controlled (col. 3, lines 18-19).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admission in view of Ylitalo et al. (US 6543890 B1), as applied to claim 1 above, and further in view of Setoriyama et al. (US 6415118 B1).

**Admission as modified by Ylitalo et al. teaches all claimed limitations except for the following:**

**\*regarding claim 2**, the protection member comprises heat insulating material (col. 11, lines 35-36)

**Setoriyama et al. teach the following:**

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**\*regarding claim 2**, the protection member comprises heat insulating material (col. 11, lines 35-36)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a protection member comprising heat insulating material into the invention of Admission as modified by Ylitalo et al. The motivation for doing so, as taught by Setoriyama et al., is to protect against heat (col. 11, lines 38-39).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admission in view of Ylitalo et al. (US 6543890 B1), as applied to claim 1 above, and further in view of Markham (US 5051758).

**Admission as modified by Ylitalo et al. teaches all claimed limitations except for the following:**

**\*regarding claim 3**, the protection member is formed in a meshed shape  
**Markham teaches the following:**

**\*regarding claim 3**, the protection member is formed in a meshed shape (col. 5, lines 19-20)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize a meshed shape protection member in the invention of Admission as modified by Ylitalo et al. The motivation for doing so, as taught by Markham, is to provide a smooth surface for contacting the printhead (col. 5, lines 20-21).

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Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Admission in view of Ylitalo et al. (US 6543890 B1), as applied to claim 1 above, and further in view of Miyabayashi (US 6864302 B2).

**Admission as modified by Ylitalo et al. teaches all claimed limitations except for the following:**

**\*regarding claim 12, the UV curable ink is cationic polymerization system ink**  
**Miyabayashi teaches the following:**

**\*regarding claim 12, the UV curable ink is cationic polymerization system ink (col. 4, line 28)**

At the time of invention, it would have been obvious to a person of ordinary skill in the art to utilize cationic polymerization system ink into the invention of Admission modified by Ylitalo et al. The motivation for doing so, as taught by Miyabayashi, is that cationic polymerization system inks produce images free of blurring or color bleeding (col. 4, lines 26-34).



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*Communication with the USPTO*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelby Fidler whose telephone number is (571) 272-8455. The examiner can normally be reached on MWF 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*SLF* 5/12/2006

SLF

*K. FEGGINS* 5/06  
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PRIMARY EXAMINER